

**ABSTRACT OF THE DISCLOSURE**

Signal wiring conductors are provided at opposing positions on the upper surface of the uppermost dielectric layer and on the lower surface of the bottommost dielectric layer, and grounding conductors surrounding grounding-conductor non-forming areas are provided on the upper surfaces of intermediate dielectric layers and the bottommost dielectric layer. These grounding conductors form an electromagnetically shielded space by being connected by grounding-conductor via conductors vertically penetrating the respective dielectric layers around the grounding-conductor non-forming areas, and signal via conductors are so provided in the respective dielectric layers as to penetrate this electromagnetically shielded space. A signal via conductor of the uppermost dielectric layer is connected with the signal wiring conductor on the upper surface thereof via a signal-wiring connecting conductor, and a signal via conductor of the bottommost dielectric layer is connected with the signal wiring conductor on the lower surface thereof via a signal-wiring connecting conductor.